CLAIMS

1. A method in a satellite position system enabled mobile wireless communication device having an oscillator, comprising:

determining a change in cellular network based frequency error of the oscillator based on a difference between a cellular network based frequency error of the oscillator and a reference cellular network based frequency error of the oscillator;

determining a first frequency error of the oscillator by summing a reference satellite positioning system receiver based oscillator frequency error with the change in cellular network based frequency error of the oscillator.

2. The method of Claim 1,

determining the reference cellular network based frequency error and the reference satellite positioning system receiver based frequency error at the same time ;

storing in the mobile wireless communication device the reference cellular network based frequency error and the reference satellite positioning system receiver based frequency error.

3. The method of Claim 2, storing the reference cellular network based frequency error by storing a control word associated therewith.

4. The method of Claim 2, determining the reference satellite positioning system receiver based frequency error upon determining a satellite positioning system position fix.

5. The method of Claim 2, determining the reference satellite positioning system receiver based frequency error upon measuring a satellite positioning system Doppler frequency to at least one satellite.

6. The method of Claim 1, the oscillator is an uncompensated oscillator, compensating for an offset frequency of the uncompensated oscillator based on the first frequency error.

7. The method of Claim 1, determining a time rate of change of the first frequency error, determining a subsequent frequency error based on the time rate of change of frequency error and the first frequency error.

8. The method of Claim 7, compensating for an offset frequency in the oscillator based on a frequency error and based on the time rate of change of the frequency error.

9. The method of Claim 1, using frequency error of the oscillator to acquire GPS satellites.

10. The method of Claim 1, determining a temperature based time rate of change of the frequency error of the oscillator,

determining a subsequent frequency error based on the temperature based time rate of change of frequency error and the first frequency error.

11. A method in a location enabled mobile wireless receiver having an oscillator, comprising:

determining a first frequency error of the oscillator;

determining a temperature based time rate of change of the frequency error of the oscillator;

determining a subsequent frequency error based on the temperature based time rate of change of frequency error and the first frequency error.

12. The method of Claim 11, determining a temperature based time rate of change of the oscillator frequency error based on Beckmann curve data.

13. The method of Claim 11, determining a temperature based time rate of change of the oscillator frequency error based upon stored temperature versus frequency data and stored learning data.

14. The method of Claim 11,

determining a change in an RF signal based frequency error of the oscillator based on a difference between an RF signal based frequency error of the oscillator and a reference RF signal based frequency error of the oscillator;

determining the first frequency error by summing a reference satellite positioning system receiver based oscillator frequency error with the change in cellular network based frequency error of the oscillator.

15. The method of Claim 14,

determining a time rate of change of the frequency error;

determining the subsequent frequency error based on the time rate of change of frequency error, the first frequency error, and the temperature based time rate of change of frequency error.

16. The method of Claim 15, compensating the oscillator based on a frequency error and based on the time rate of change of the frequency error.

17. The method of Claim 15, determining the temperature based time rate of change of oscillator frequency based on Beckmann curve data and learning curve data.

18. The method of Claim 17, updating the learning curve data based upon the frequency error measurement data.

19. The method of Claim 18, updating the learning curve data based upon satellite positioning system measurement data.

20. The method of Claim 19, weighting the frequency error measurement data and the satellite positioning measurement data used to update the learning curve data based upon at least one of reliability and quality of the frequency error measurement data and the satellite positioning measurement data.

21. A method for compensating an oscillator in a satellite positioning system enabled mobile device having an RF receiver, comprising:

determining a change in RF signal based frequency error of the oscillator based on a difference between an RF signal based frequency error of the oscillator and a reference RF signal based frequency error of the oscillator;

determining a first frequency error of the oscillator by summing a reference satellite positioning system receiver based oscillator frequency error with the change in RF signal based frequency error of the oscillator.

22. The method of Claim 21,

determining the reference RF signal based frequency error and the reference satellite positioning system receiver based frequency error at the same time upon determining a satellite positioning system position fix of the mobile device;

storing in the mobile wireless communication device the reference RF signal based frequency error and the reference satellite positioning system receiver based frequency error.

23. The method of Claim 21, compensating the oscillator based on the first frequency error.

24. The method of Claim 23, determining a time rate of change of the first frequency error, determining a subsequent frequency error based on the time rate of change of frequency error and the first frequency error.

25. The method of Claim 24, compensating the oscillator based on frequency error and based on a time rate of change of the frequency error.

26. The method of Claim 21, using frequency error of the oscillator to acquire GPS satellites.

27. The method of Claim 21, determining a temperature based time rate of change of frequency error of the oscillator,

determining a subsequent frequency error based on the temperature based time rate of change of frequency error and the first frequency error.